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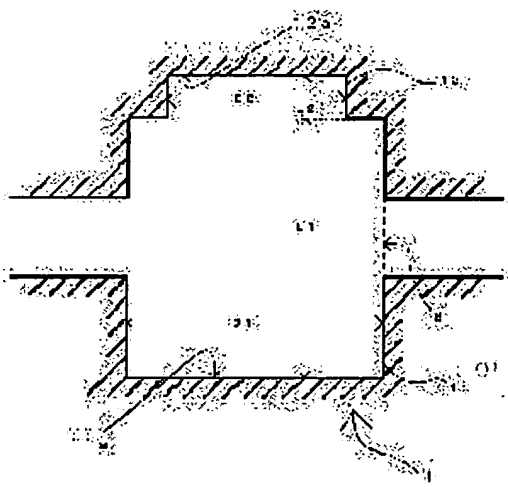
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## (54) BAND PASS FILTER

## (57)Abstract:

PROBLEM TO BE SOLVED: To provide a band pass filter that attenuates an electromagnetic wave in the TM<sub>111</sub> mode.

SOLUTION: A cylindrical cavity resonator 1 of the band pass filter consists of cylinders 11, 12 whose diameters differ from each other and whose axes are substantially made concentric, which are adhered to each other to form a cavity in the inside. The diameter and the length of the axes of the cylinders 11, 12 are selected so that the cylindrical cavity resonator 1 is resonated in the TE<sub>011</sub> mode. since the diameter of a short-circuit face 11a at the cylindrical cavity resonator 1 differs from that of a short-circuit face 12a, the cylindrical cavity resonator 1 can drastically attenuate an electromagnetic wave in the TM<sub>111</sub> mode and bring the resonance frequency in the TM<sub>111</sub> mode to a frequency at the outside of a pass band of the band pass filter.



## LEGAL STATUS

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